

寶 號
CUSTOMER

MARITEX

HF
ROHS
COMPLIANT

承 認 書

SPECIFICATION FOR APPROVAL

品名
PRODUCT NAME K5B FS 18x5x8-1.0-01

客戶料號 批號
CUSTOMER PART NO. SAMPLE NO.

日期
DATE. 2014/10/03

Customer Approved Status 客戶承認範圍

FULLY APPROVED (全部承認)	PARTILLY APPROVED (部份承認)	REVISE APPROVED (修訂承認)
Drawn by	Checked by	Approved by
陳雯欣	吳明珠	吳炳勳



KING CORE ELECTRONICS INC.

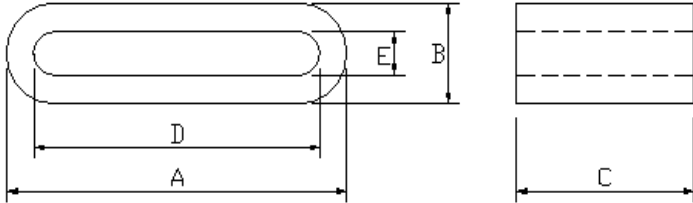
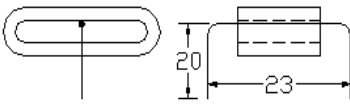
NO 269, Nanfong Rd., Pingjhen City, Taoyuan County Taiwan

Tel: 886-3-4698855 Fax: 886-3-4691395

Web site: [http:// www.kingcore.com. tw](http://www.kingcore.com.tw)

E-mail: [kc@mail.kingcore.com. tw](mailto:kc@mail.kingcore.com.tw)

SPECIFICATION FOR APPROVAL

CUSTOMER:	MARITEX	CUST.P/N:	
ORDERING CODE:	K5B FS 18x5x8-1.0-01	K.C.P/N:	
(1) SHAPE : 	A	18.0±1.0 mm	
	B	5.0±0.3 mm	
	C	8.0±0.5 mm	
	D	14.0±0.5 mm	
	E	1.0±0.25 mm	
(2) ELECTRICAL REQUIREMENTS: $Z_1 = 37 \text{ min OHM AT } 25 \text{ MHz}$ $Z_2 = 124 \text{ min OHM AT } 100 \text{ MHz}$	(3) TEST CONDITIONS: 1. IMPEDANCE ANALYZER: Agilent E4991A TEST FIXTURE: HP16092A 2. WIRE: $\Phi 0.8$ 2UEWx220mm x 1/2Ts 3. DRAWING: 		
	(4) PACKING <input type="checkbox"/> IN BULK <input checked="" type="checkbox"/> VACUUM <input type="checkbox"/> INSERTION PCS/BAG* BAGS/INNER BOX: BOXES/CARTON = PCS 252 PCS/PLATE* 14 PLATES/CARTON= 3528 PCS PCS/TRAY* TRAYS/CARTON= PCS	(5) APPEARANCE (1) AREA OF BREAK : <1 mm ² (2) SUM OF BREAKING AREA : <2 mm ² (3) DEPTH OF BREAK : <0.8 mm It is considered as a normal condition that the surface of core covers with ferrite powder.	
(6) REMARK:	Approved by 吴炳歆		
	Checked by 吴明珠		
	Drawn by 陈雯欣 2014/10/3		
	DWG.NO. 2014A001A		

ER011B

TEST DATA FOR PREPRODUCTION SAMPLES

CUSTOMER	MARITEX			CUST. P/N		
ORDERING CODE	<i>K5B FS 18x5x8-1.0-01</i>			K.C. P/N		
TEMP.	24 °C	RH	69 %	DWG.NO.	2014A001A	
WIRE	0.8x220mm ϕ_{2UEW}	WINDING	1/2 Ts	Q'TY	5PCS	
Test Instruments						
Meas. Item.	Z (OHM)	Z (OHM)	A mm	B mm	C mm	D mm
Specification	37 min	124 min	18.0±1.0	5.0±0.3	8.0±0.5	14.0±0.5
Test Freq.	25 MHz	100 MHz				
sample#1	44	145	18.09	5.02	8.03	13.86
sample#2	43	140	18.17	5.02	8.12	13.84
sample#3	44	144	18.00	5.00	8.00	13.88
sample#4	44	146	17.96	5.00	7.99	13.85
sample#5	45	147	18.04	5.01	8.01	13.87
sample#6						
sample#7						
sample#8						
sample#9						
sample#10						
\bar{X}	44.0	144.4	18.052	5.010	8.030	13.860
R	2	7	0.21	0.02	0.13	0.04
REMARK:				Approved by: 吴炳焜		
				Checked by: 吴明珠		
				Drawn by: 陈雯欣		

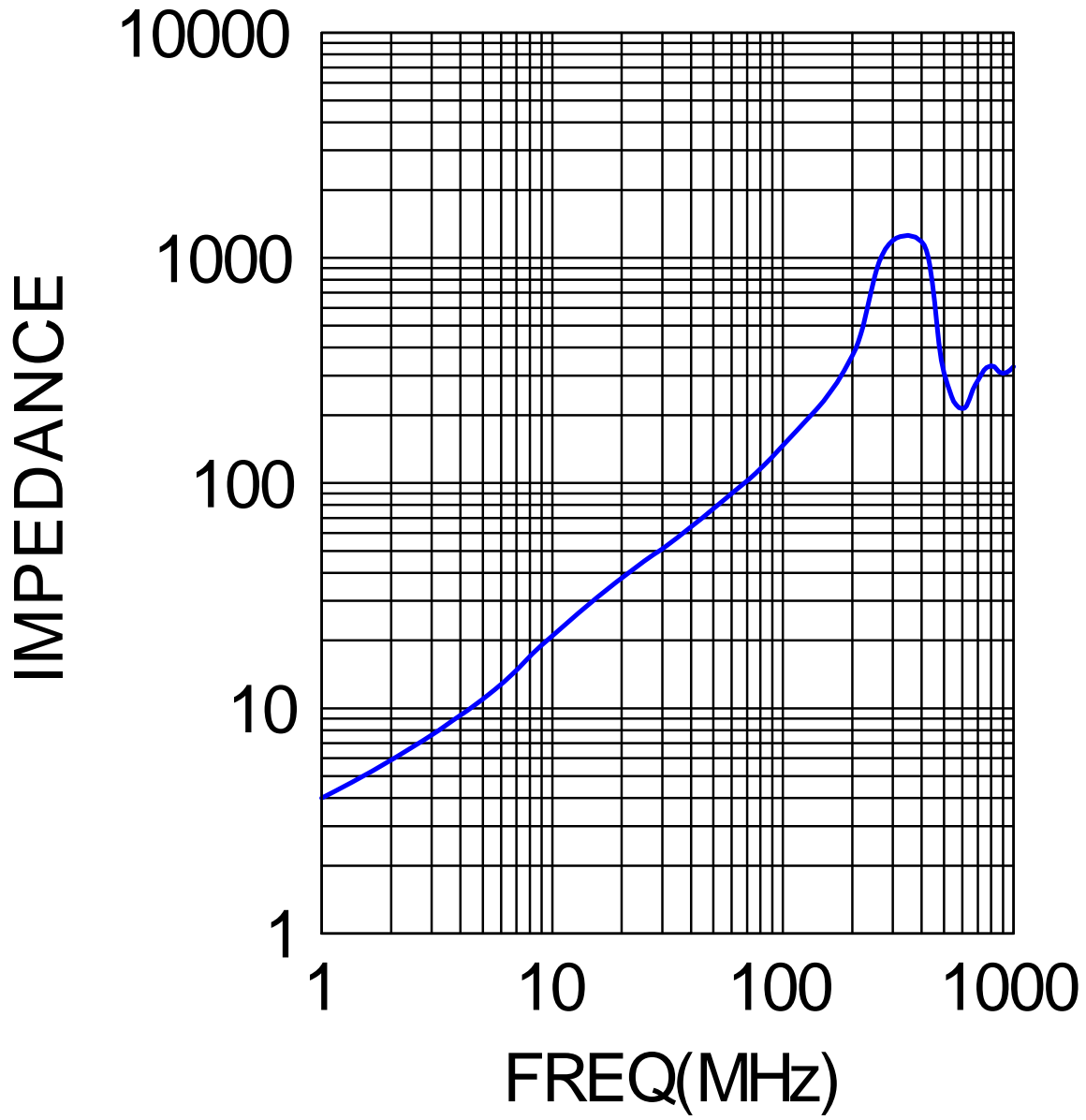
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TEST DATA FOR PREPRODUCTION SAMPLES

CUSTOMER	MARITEX			CUST. P/N	
ORDERING CODE	<i>K5B FS 18x5x8-1.0-01</i>			K.C. P/N	
TEMP.	24 °C	RH	69 %	DWG.NO.	2014A001A
WIRE	0.8x220mm ϕ_{2UEW}	WINDING	1/2 Ts	Q'TY	5PCS
Test Instruments					
Meas. Item.	<i>E mm</i>				
Specification	1.0±0.25				
Test Freq.					
sample#1	1.02				
sample#2	1.02				
sample#3	1.01				
sample#4	1.07				
sample#5	1.01				
sample#6					
sample#7					
sample#8					
sample#9					
sample#10					
\bar{X}	1.026				
R	0.06				
REMARK:				Approved by: 吴炳勳	
				Checked by: 吴明珠	
				Drawn by: 陈曼欣	

KING CORE ELECTRONICS INC.

K5B FS 18x5x8-1.0-01



測試報告 Test Report

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鈞寶電子工業股份有限公司
KING CORE ELECTRONICS INC.
桃園縣平鎮市平鎮工業區南豐路269號
NO. 269, NANFONG RD., PINGJHEN CITY, TAOYUAN COUNTY, TAIWAN



以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as) :

送樣廠商(Sample Submitted By) : 鈞寶電子工業股份有限公司 (KING CORE ELECTRONICS INC.)
樣品名稱(Sample Description) : FERRITE CORE
樣品型號(Style/Item No.) : K5B
收件日期(Sample Receiving Date) : 2014/04/17
測試期間(Testing Period) : 2014/04/17 TO 2014/04/22

=====
測試需求(Test Requested) : (1) 依據客户要求, 参考RoHS 2011/65/EU Annex II 指令進行鎘, 鉛, 汞, 六價鉻, 多溴聯苯, 多溴聯苯醚測試. (As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.)
(2) 依據客户指定, 進行全氟辛酸、全氟辛酸磺酸、鹵素-氟、氯、溴、碘測試. (As specified by client, to test PFOA, PFOS, Halogen-Fluorine, Chlorine, Bromine, Iodine contents in the submitted sample.)
測試方法(Test Method) : 請見下一頁 (Please refer to next pages).
測試結果(Test Results) : 請見下一頁 (Please refer to next pages).
結論(Conclusion) : (1) 根據客户所提供的樣品, 其鎘, 鉛, 汞, 六價鉻, 多溴聯苯, 多溴聯苯醚的測試結果符合RoHS指令2002/95/EC的更新指令2011/65/EU之要求 (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.)


Edison Chang / Sr. Supervisor
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

測試報告

Test Report

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測試結果(Test Results)

測試部位(PART NAME) No.1 : 鐵灰色塊狀 (IRON-GRAY LUMP)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)
				No.1	
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應 耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS 檢測. / With reference to IEC 62321: 2008 and performed by UV- VIS.	2	n.d.	1000
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3550C: 2007方法, 以液 相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3550C: 2007方法, 以液 相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	法規 限值 (Limit)		
				No.1			
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	1000		
一溴聯苯 / Monobromobiphenyl			5	n.d.	-		
二溴聯苯 / Dibromobiphenyl			5	n.d.	-		
三溴聯苯 / Tribromobiphenyl			5	n.d.	-		
四溴聯苯 / Tetrabromobiphenyl			5	n.d.	-		
五溴聯苯 / Pentabromobiphenyl			5	n.d.	-		
六溴聯苯 / Hexabromobiphenyl			5	n.d.	-		
七溴聯苯 / Heptabromobiphenyl			5	n.d.	-		
八溴聯苯 / Octabromobiphenyl			5	n.d.	-		
九溴聯苯 / Nonabromobiphenyl			5	n.d.	-		
十溴聯苯 / Decabromobiphenyl			5	n.d.	-		
多溴聯苯醚總和 / Sum of PBDEs					-	n.d.	1000
一溴聯苯醚 / Monobromodiphenyl ether					5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether					5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether					5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether					5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether					5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether					5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether					5	n.d.	-
八溴聯苯醚 / Octabromodiphenyl ether					5	n.d.	-
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.	-		
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.	-		
鹵素 / Halogen							
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	-		
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg		50	n.d.	-		
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg		50	n.d.	-		
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg		50	n.d.	-		

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備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)

PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm), 在半成品、成品或零部件中不得超過0.1%(1000ppm), 在紡織品或塗層材料中不得超過 $1\mu\text{g}/\text{m}^2$ 。(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above $1\mu\text{g}/\text{m}^2$.)

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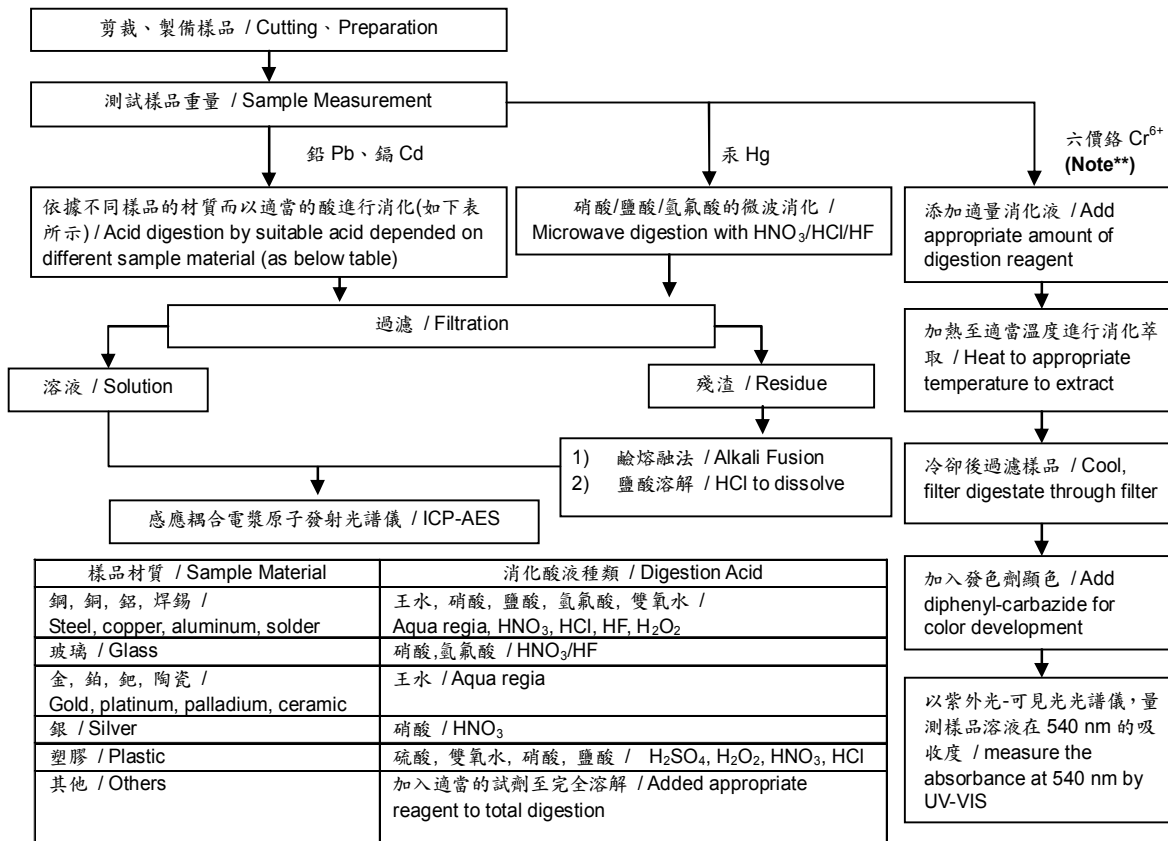
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- 1) 根據以下的流程圖之條件, 樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員: 楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人: 張啓興 / Name of the person in charge of measurement: Troy Chang



Note:** (1) 針對非金屬材料加入鹼性消化液, 加熱至 90~95°C 萃取。 / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
 (2) 針對金屬材料加入純水, 加熱至沸騰萃取。 / For metallic material, add pure water and heat to boiling.

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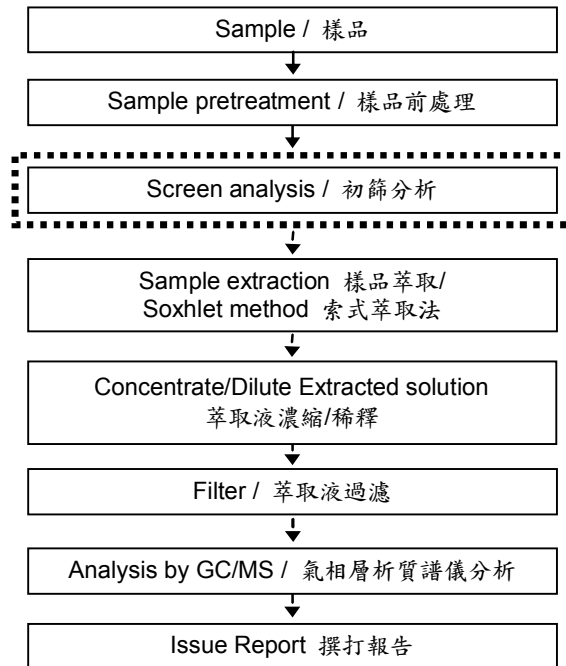
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多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
 - 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang
- 初次測試程序 / First testing process —————>
- 選擇性篩檢程序 / Optional screen process>
- 確認程序 / Confirmation process - - ->



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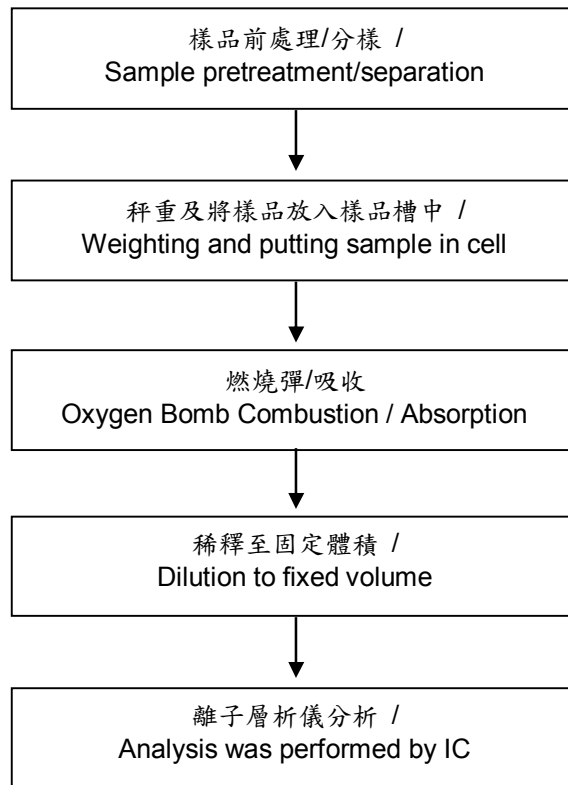
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NO. 269, NANFONG RD., PINGJHEN CITY, TAOYUAN COUNTY, TAIWAN



鹵素分析流程圖 / Analytical flow chart of halogen content

- 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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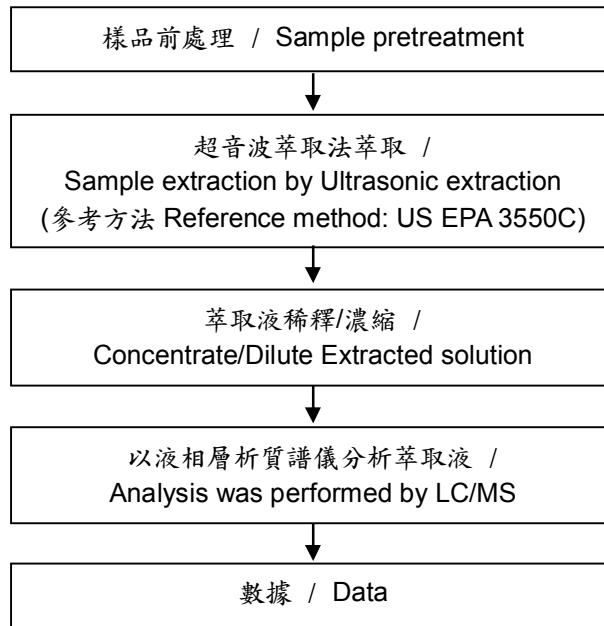
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全氟辛酸/全氟辛烷磺酸分析流程圖 / PFOA/PFOS analytical flow chart

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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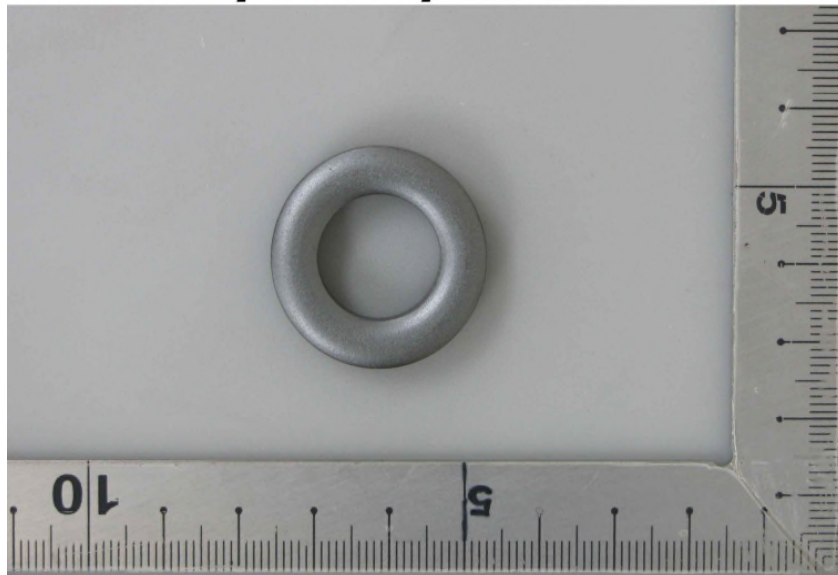
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* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*
(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2014/43868



** 報告結尾(End of Report) **